Abstract

Generating Diagnostic Information for Probabilistic Processes

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In this paper, we present a framework to automatically point "witness" pairs of states if generative probabilistic processes are not equal in the sense of the probabilistic testing preorders proposed by Cleaveland et al. For simplicity, only τ-free processes are considered, here. We give a Larsen-Skou-like bisimulation characterization equivalent to the alternative characterization. The characterization enables us to compare two probabilistic processes directly. Based on the characterization, we present a simple algorithm that generates diagnostic traces to indicate the difference points between the processes.

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